



Hamidreza Farhadi Tolie

Profile

A detail-oriented and adaptable Ph.D. candidate with academic experience in Image Processing, Deep Learning, Data Mining. Organized and responsible capable of performing both independently and cooperatively in multi-culture and interdisciplinary environmental programs. Skilled at image processing including but not limited to screen content, natural, and underwater image quality assessment and enhancement, deep learning, and practice in approaching various vision-related research/work challenges.

Education

- 2022–Present **Ph.D. of Computer Science - Artificial Intelligence**, *Robert Gordon University, Aberdeen, UK.*
Research Project: Multimodal Image Fusion and Deep Learning for Condition Monitoring in Subsea Applications
- 2018–2021 **M.Sc. of Computer Science - Data Mining**, *Institute for Advanced Studies in Basic Sciences, Zanjan, Iran, GPA – 19.23/20 (4/4).*
Thesis: Quality Assessment of Screen Content Images
- 2014–2018 **B.Sc. of Information Technology Engineering**, *Institute for Advanced Studies in Basic Sciences, Zanjan, Iran, GPA – 16.71/20 (3.47/4).*

Research interest

- Image Processing
- Machine Learning
- Image Enhancement
- Deep Learning
- Computer Vision
- Image Quality Assessment

Publications

H. Farhadi Tolie and *J. Ren*, "Protecting Visual Data Privacy in Offshore Industry via Underwater Image Inpainting", *Manuscript is under review, 2024*

H. Farhadi Tolie and *J. Ren*, "Blind sonar image quality assessment via microand macro-scale texture and contour features in the wavelet domain", *Manuscript is under review, 2024*

H. Farhadi Tolie and *J. Ren*, "SICAW: Structural and Image Contour Based Scoring and Adaptive Weighting for Blind Quality Assessment of Underwater Images", *Manuscript is under review, 2024*

H. Farhadi Tolie, *J. Ren*, and *Eyad Elyan*, "DICAM: Deep Inception and Channel-wise Attention Modules for Underwater Image Enhancement", *Neurocomputing, 2024. (doi)*

H. Farhadi Tolie, *M. R. Faraji*, and *X. Qi*, "Blind Quality Assessment of Screen Content Images Via Edge Histogram Descriptor and Statistical Moments", *The Visual Computer, 2023. (doi)*

H. Farhadi Tolie and M. R. Faraji, "Screen Content Image Quality Assessment Using Distortion-based Directional Edge and Gradient Similarity Maps", Signal Processing: Image Communication, vol. 101, February, 2022. (doi) .

Teaching Experience - Teaching Assistant

Data Management, Robert Gordon University, 2023 Fall-winter.
taught by Dr. Robert Lothian

Software Project Engineering, Robert Gordon University, 2023 Winter-Spring 2023.
taught by Dr. Kit-ying Hui

Data Management, Robert Gordon University, 2022 Fall-winter.
taught by Dr. Robert Lothian

Image Processing, Institute for Advanced Studies in Basic Sciences , 2021 Winter.
taught by Dr. Mohammad Reza Faraji

Computational Data mining, Institute for Advanced Studies in Basic Sciences, 2019 Autumn.
taught by Dr. Zahra Narimani and Dr. Mahdi Vasighi

Intelligence Systems, Institute for Advanced Studies in Basic Sciences, 2019 Spring.
taught by Dr. Parvin Razzaghi

Image Processing, Institute for Advanced Studies in Basic Sciences, 2018 Winter.
taught by Dr. Mohammad Reza Faraji

Logic Circuits, Computer Architecture 1, and Computer Architecture 2, Institute for Advanced Studies in Basic Sciences, 2016 fall - 2017 fall (4 semesters).
taught by Dr. Reza Parsamehr

Work Experience

2022-Present **Part-time demonstrator, Robert Gordon University, Aberdeen.**
Helping tutors in practical lab sessions

2017-2018 **Front-End Developer, Behin Sayar Corporation, Zanjan.**
Worked as Front-End Developer, Using HTML, CSS, and jQuery/Javascript, Angular 4.

Additional Activities

November 2023 **Volunteer organizer** at 34-th British Machine Vision Conference (BMVC2023), Aberdeen, UK ([Link](#))

June 2022 **Poster presentation** at Scottish Informatics and Computer Science Alliance (SICSA), Glasgow Caledonian University, Glasgow, UK

5-8 September 2021 Fifth IPM Advanced School on Computing (Artificial Intelligence), (Virtual) Tehran, Iran ([Link](#))

March 2019 The International Conference on Contemporary Issues in Data Science (CiDaS), Institute for Advanced Studies in Basic Sciences (IASBS), Zanjan, Iran

6-9 March 2019 Workshop on Deep Learning, Institute for Advanced Studies in Basic Sciences (IASBS), Zanjan, Iran ([Link](#))

Honors and Awards

- Admitted for pursuing graduate studies at Institute for Advanced Studies in Basic Sciences (IASBS), Zanjan, Iran in 2018 without entrance examinations (Only granted to talented students)
- Recognized as *Brilliant Talent* by Institute for Advanced Studies in Basic Sciences (IASBS), Zanjan, Iran (2018)
- Ranked among the Top 15% (7/46) students of Information Technology Engineering, Institute for Advanced Studies in Basic Sciences (IASBS), Zanjan, Iran. Class of 2014
- Accepted in the top 5% among more than 222,000 participants in the Iranian University Entrance Exam for the Bachelor's degree in Information Technology Engineering, 2014

Computer skills

Programming Languages	Python, C++, C#, R
Scientific Software	MATLAB
Machine Learning Libraries	Numpy, Pandas, Scikit Learn, NLTK, Keras, PyTorch, mmdetection, Streamlit
Applications	LaTeX, Microsoft Office, Ronin High Performance Cloud Computing Machines

Languages

Persian	Native	
English	Fluent	<i>IELTS Academic: 7</i>
Turkish	Fluent	

References

Prof. Jinchang Ren

Professor of Computer Science, Robert Gordon University, Aberdeen, UK.

j.ren@rgu.ac.uk, [Personal Homepage](#)

Dr. Mohammad Reza Faraji

Assistant Professor at Department of Computer Science and Information Technology, Institute for Advanced Studies in Basic Sciences (IASBS), Zanjan, Iran.

m.faraji@iasbs.ac.ir, mohammadreza.faraji@aggiemail.usu.edu